

Alaska Oil and Gas Activities

Division of Oil and Gas
January 17, 2002



Alaska Department of
**Natural
Resources**

Alaska Reserves and Production

- **36% of total U.S. oil reserves.**
- 8.0 billion barrels of oil
- **17% of total U.S. gas reserves**
- 35 trillion cubic feet of gas
- **20% of total U.S. oil production**
- 1.04 million barrels of oil per day

Sources: Alaska data are from Department of Natural Resources, Division of Oil and Gas, 2001 Annual Report
U.S. data are from U.S. Crude Oil, Natural Gas, and NGL Reserves, 2000 Annual Report, U.S.D.O.E.-E.I.A.

The State Revenue Pie

Petroleum Revenue Sources, (FY 2001)

Total Royalties, Bonuses, Rents & Settlements:

\$1,145.9 Million

General Fund Royalties, Bonuses & Rents^{1,2}:
\$798.8 Million

Royalties to Permanent Fund &
School Fund⁴:
\$337.1 Million

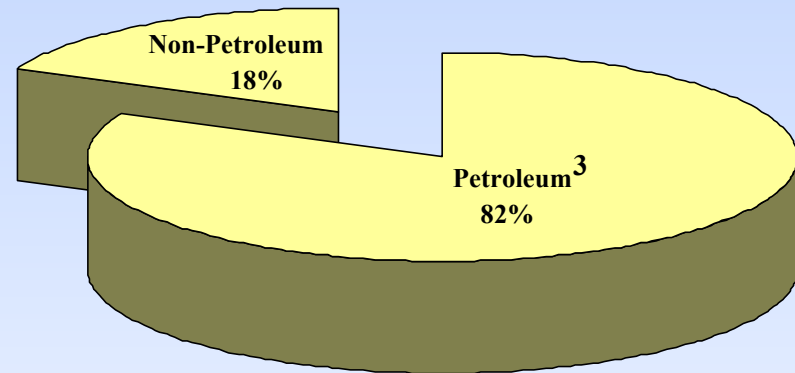
Settlements to CBRF⁴:
\$10.0 Million
(Includes Royalties & Taxes)

Taxes:

\$1,125.4 Million²

(Oil & Gas Property Tax + Tax Settlements +
Income Tax + Severance Tax)

FY 2001 Unrestricted Revenue



1 Includes Federally shared rentals

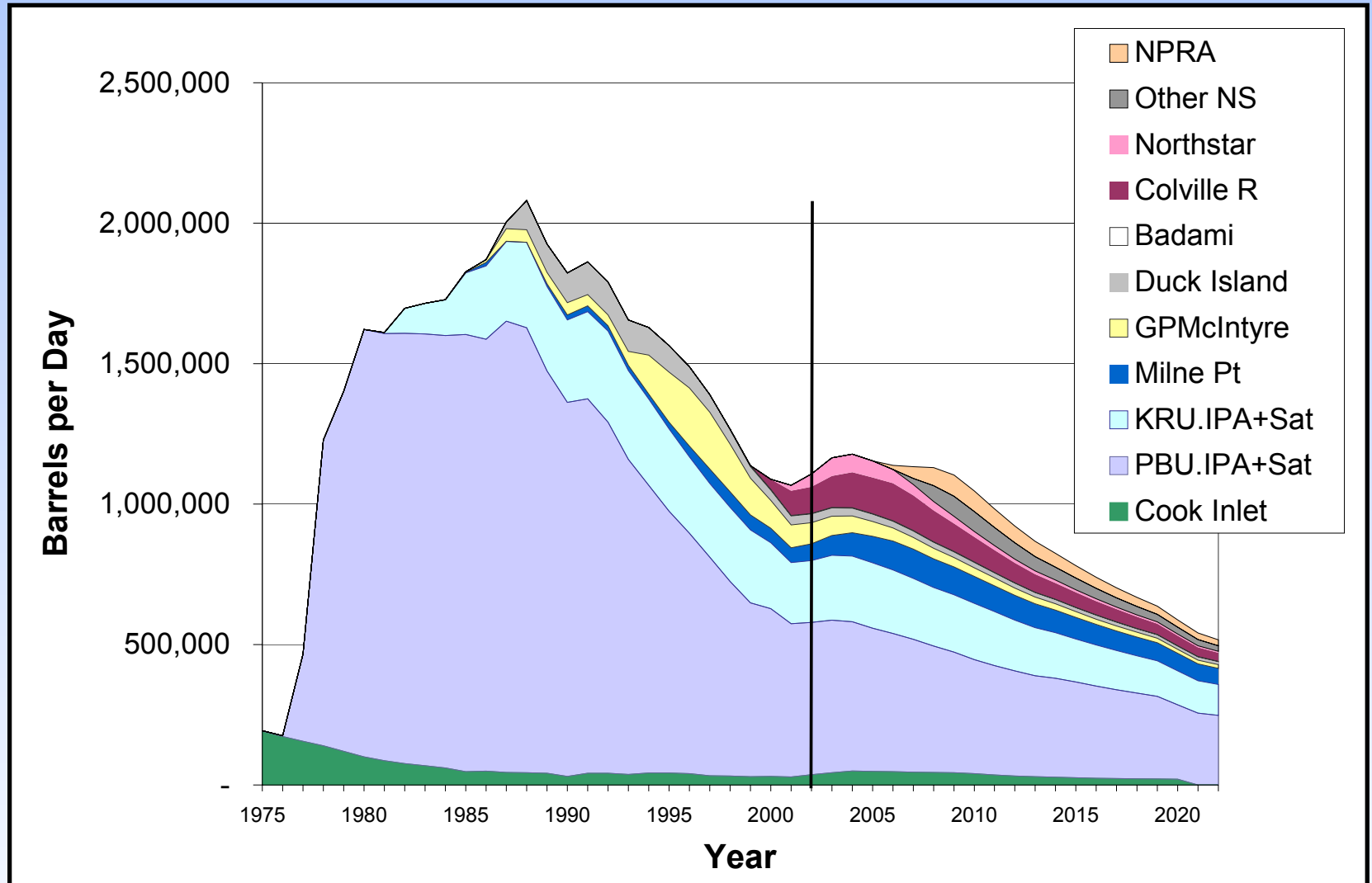
2 Source: pg. 23, DOR Fall 2001 Revenue Sources Book

3 Source: pg. 22, DOR Fall 2001 Revenue Sources Book

4 Source: pg. 19, DOR Fall 2001 Revenue Sources Book

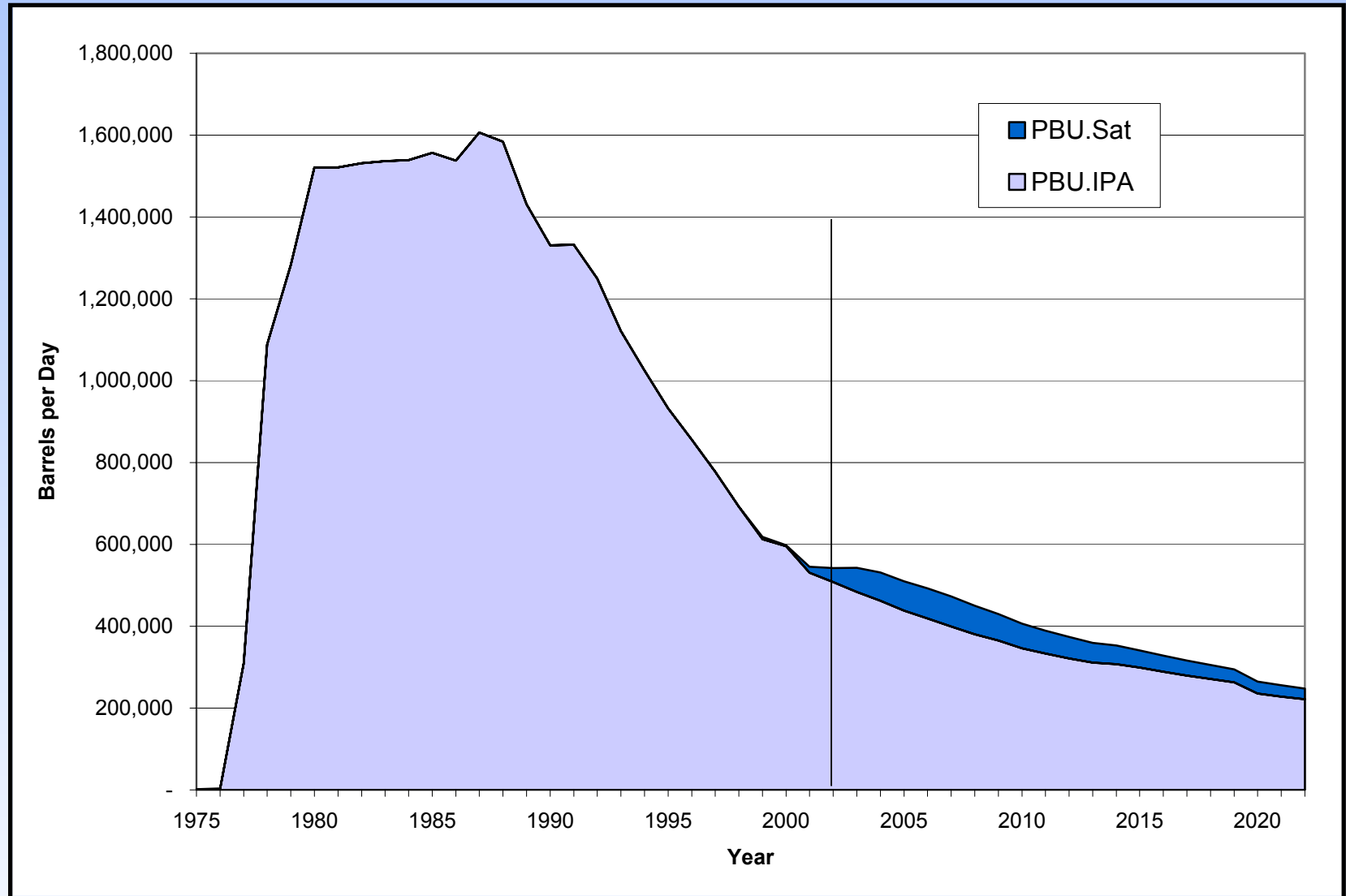
Historic and Projected Alaska Oil Production

1975 - 2022

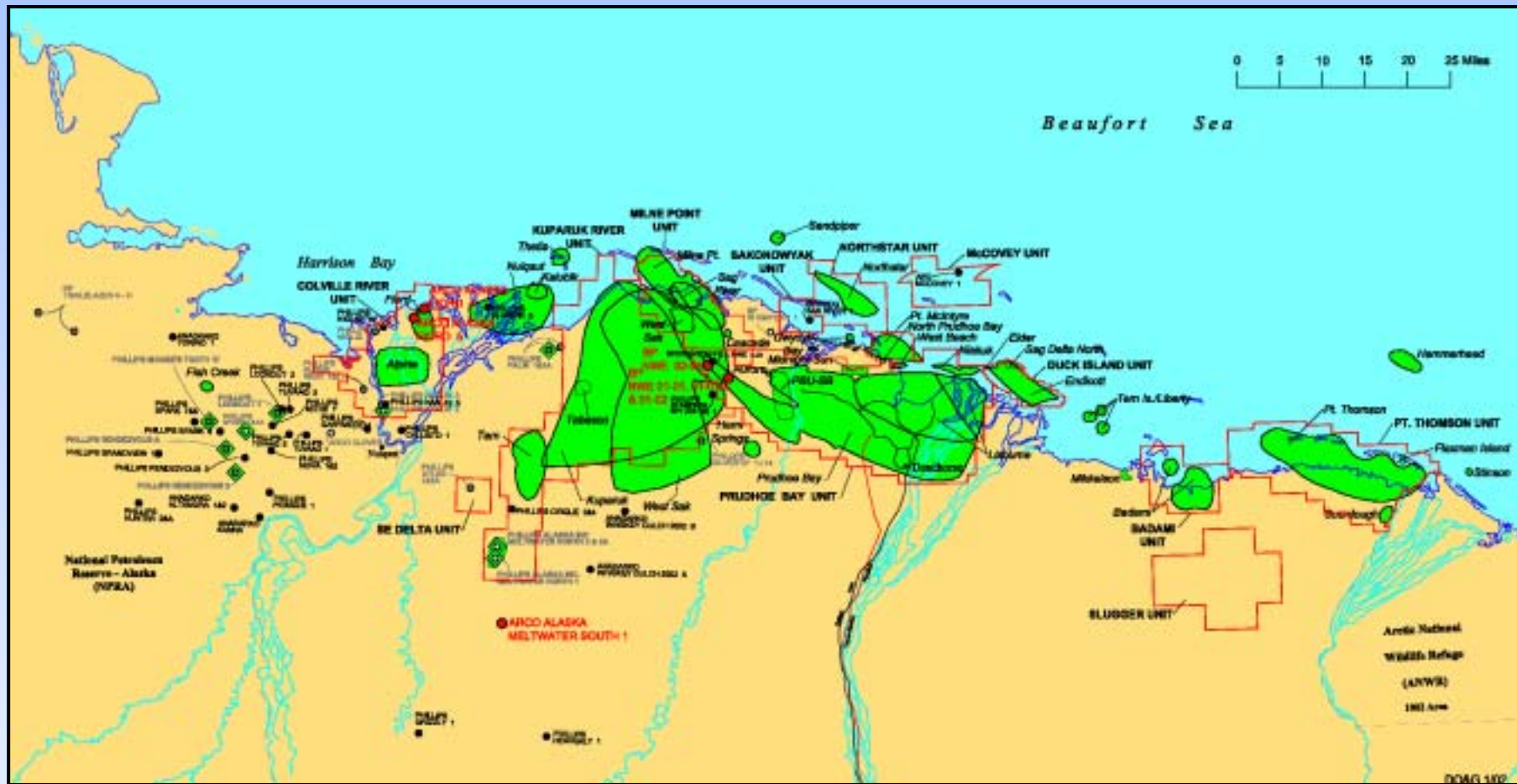


Historic and Projected Prudhoe Bay Oil Production

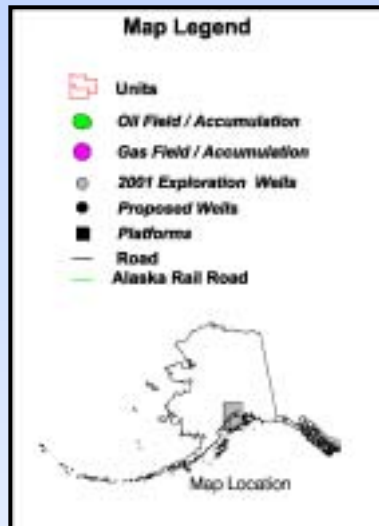
1975-2022



North Slope Oil & Gas Activity and Discoveries 2002



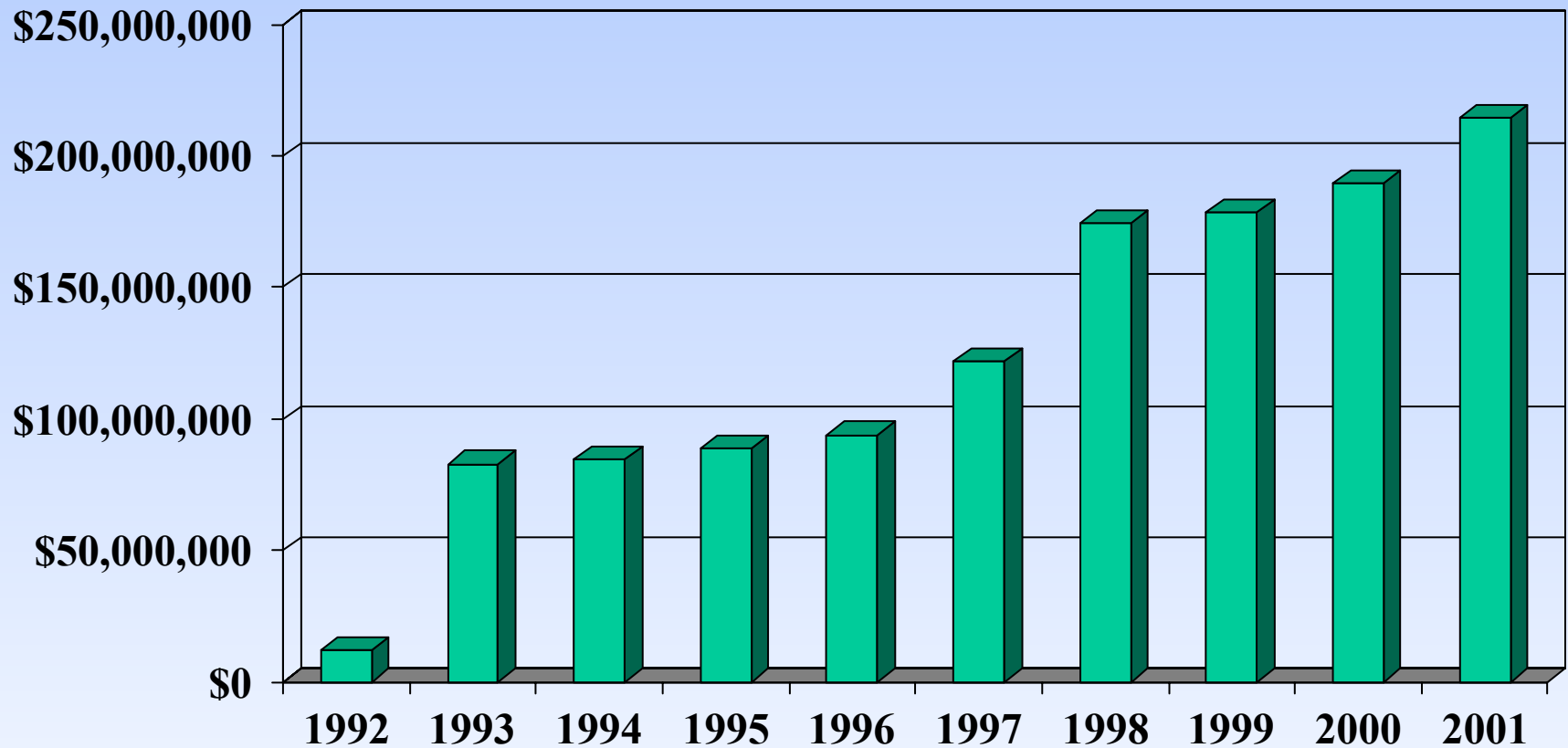
Cook Inlet Oil & Gas Activity January 2002



Alaska Oil and Gas Leasing Program



Cumulative Bonus Bids



2001 Areawide Lease Sales

Total Acres Leased = 1.6 Million

Total Bonus Bids = \$24.5 Million

North Slope Foothills

- Area's First Lease Sale
- Largest State Sale Ever
- 8 Bidding Groups
- 978,560 Acres Leased
- \$10.7 Million in Bonus Bids

North Slope

- 16 Bidding Groups (Shell returns after 13 yrs)
- 469,760 Acres Leased
- \$7.4 Million in Bonus Bids

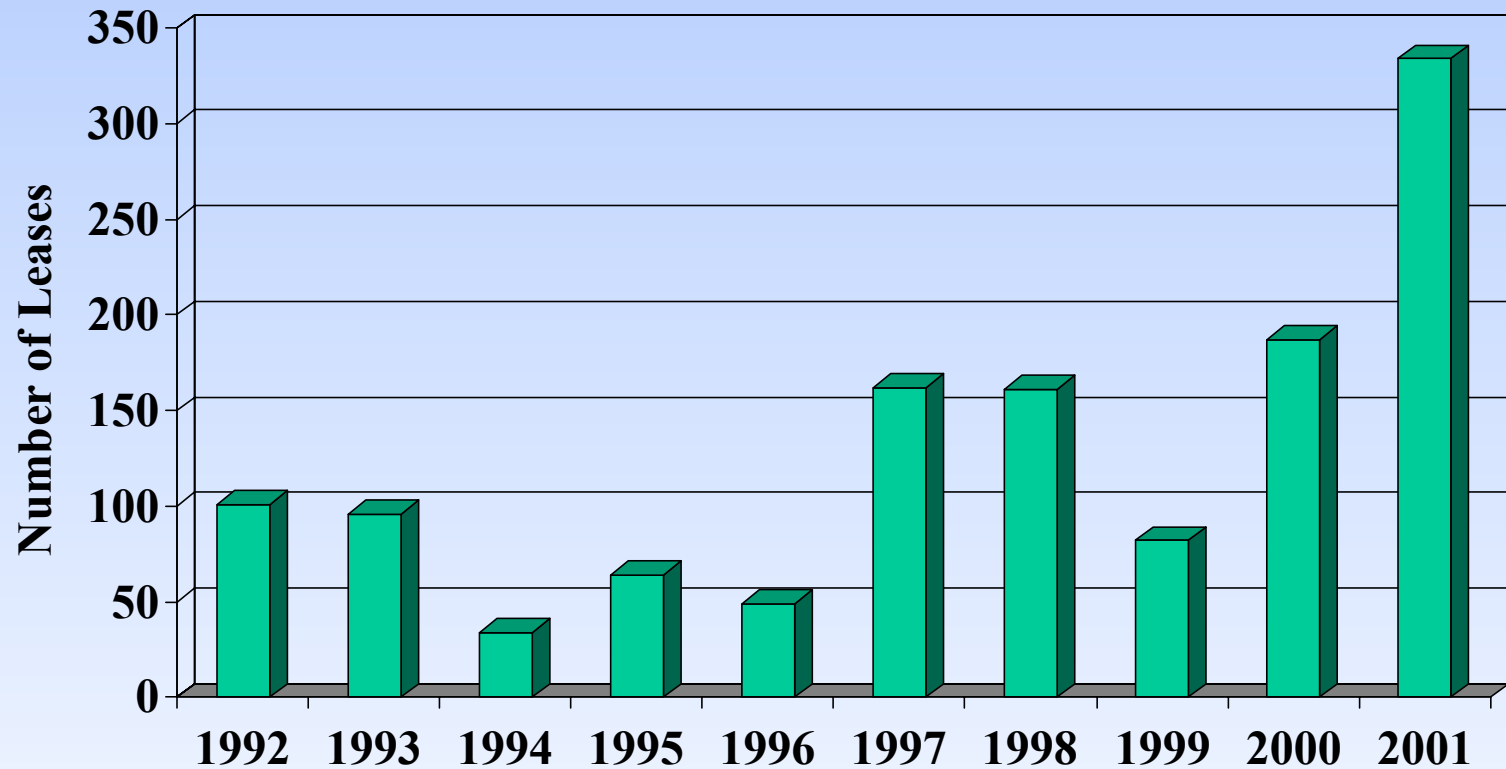
Cook Inlet*

- 6 Bidding Groups
 - 102,523 Acres Leased
 - \$928,085 in Bonus Bids
- (* Final Results)

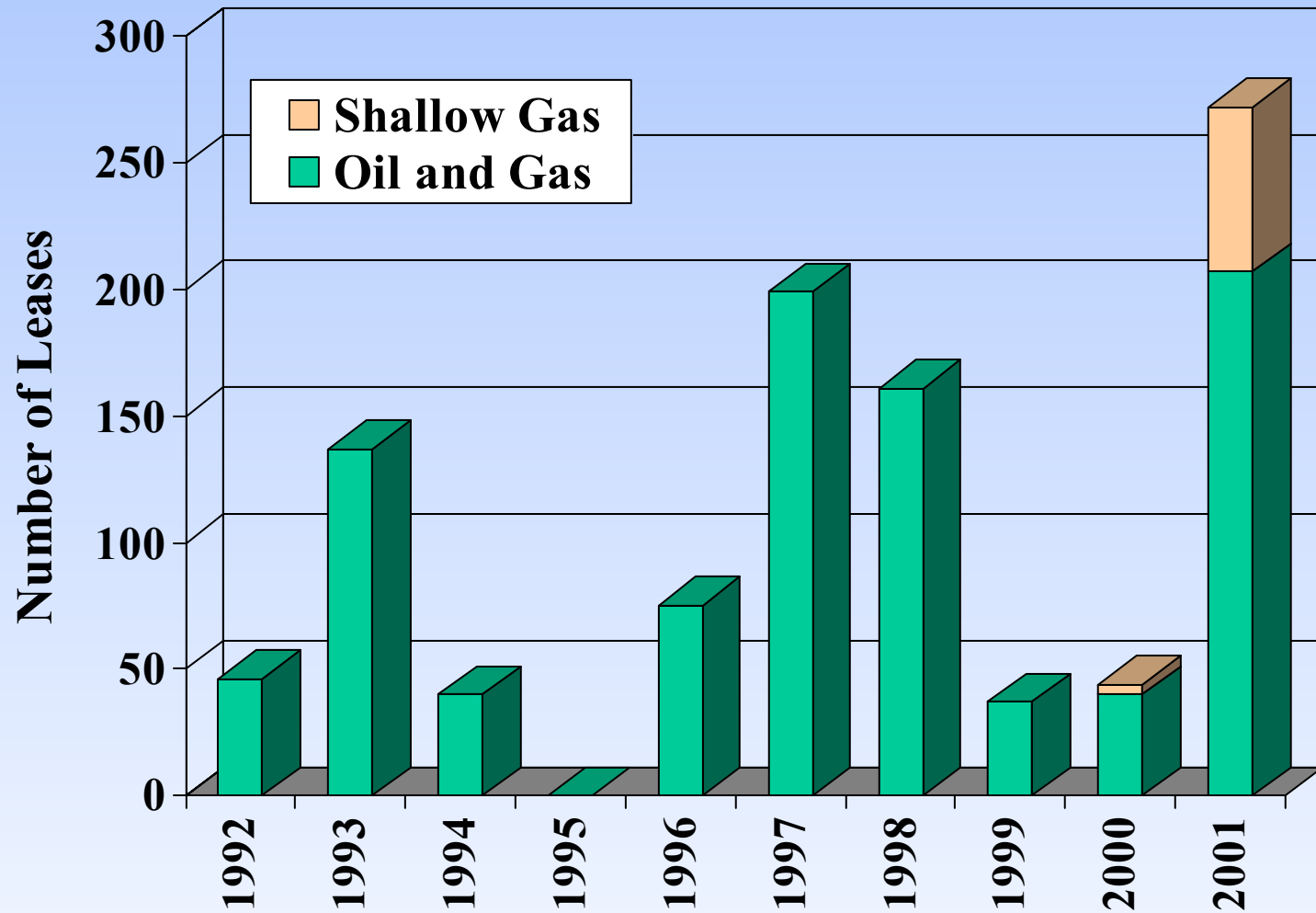
Beaufort Sea

- 7 Bidding Groups
- 60,800 Acres Leased
- \$5.4 Million in Bonus Bids

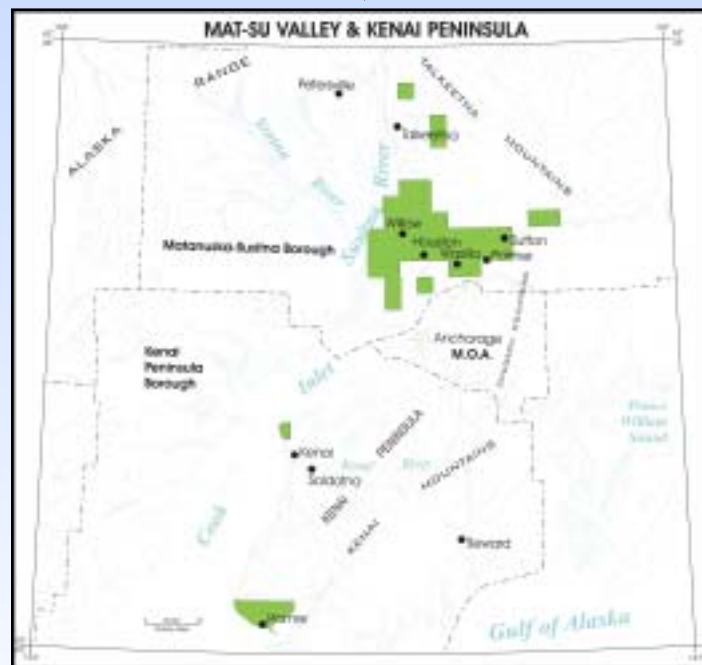
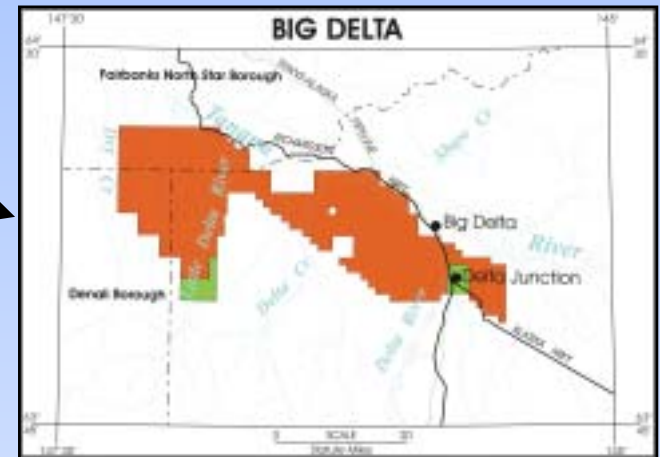
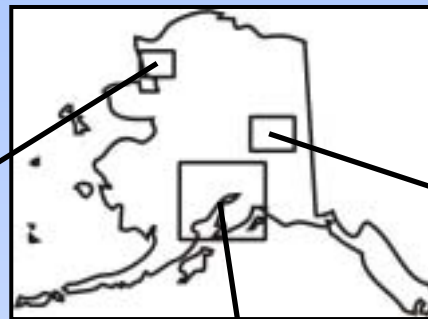
Oil and Gas Leases Sold



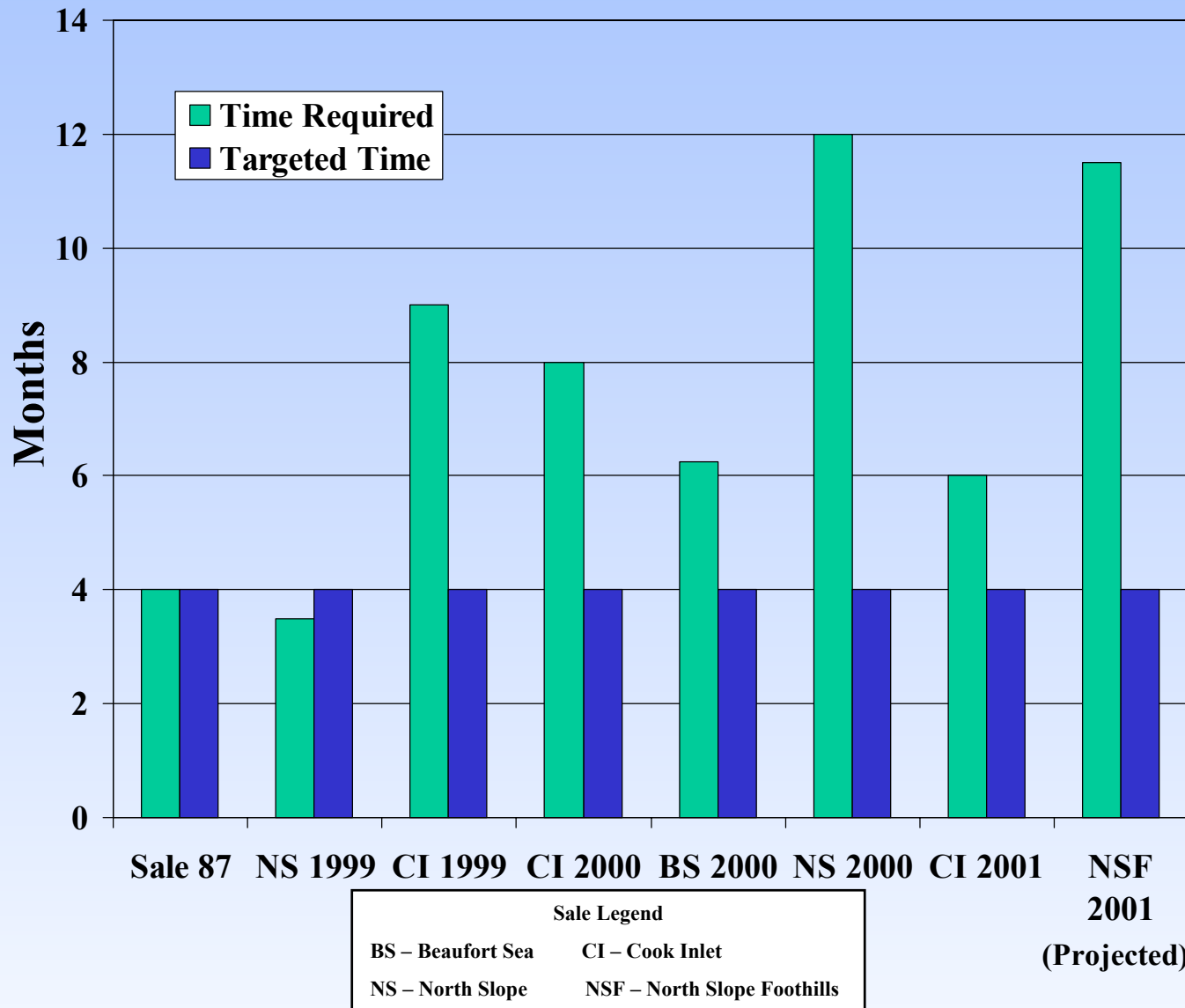
Leases Issued



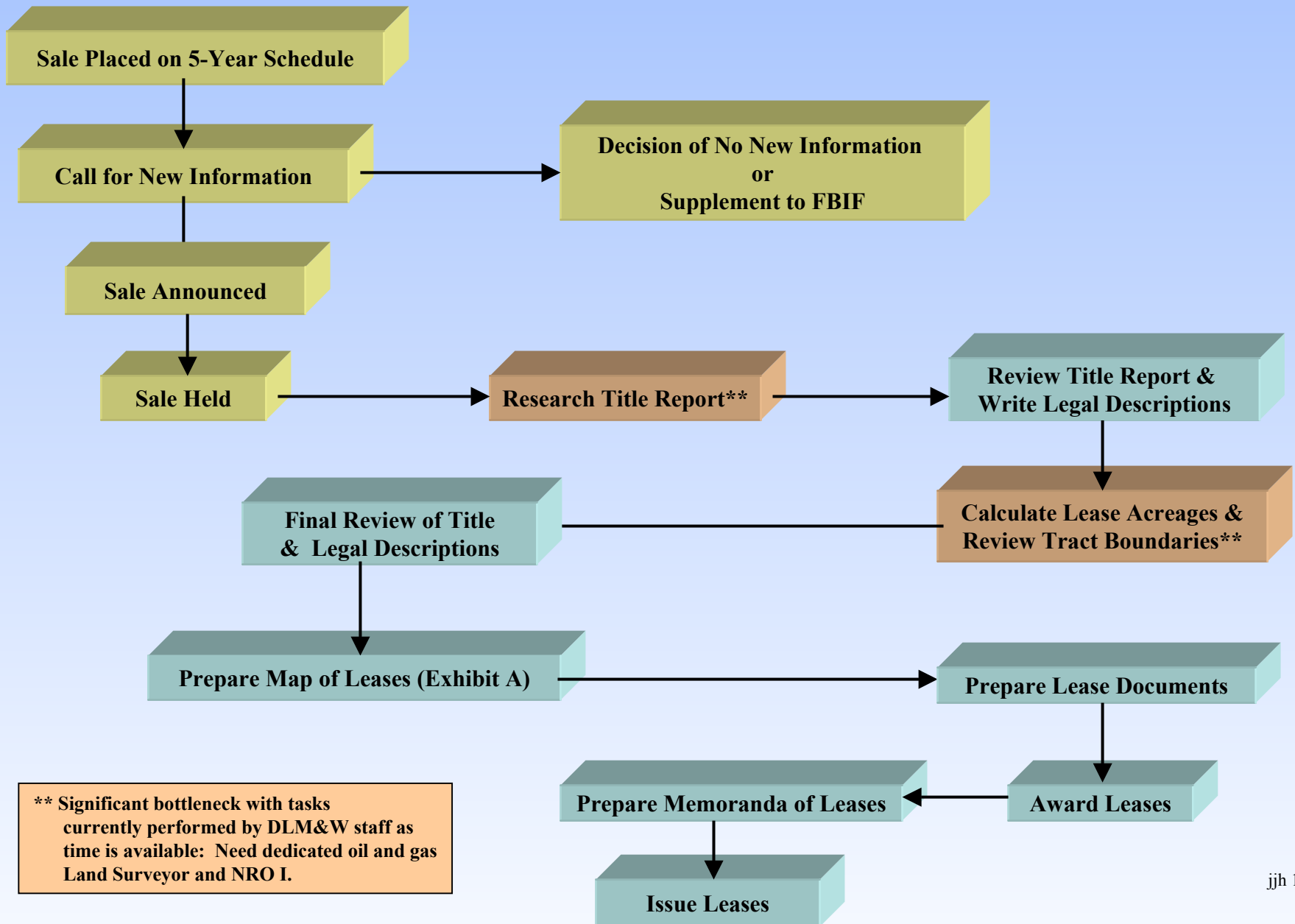
Shallow Natural Gas Leasing Program



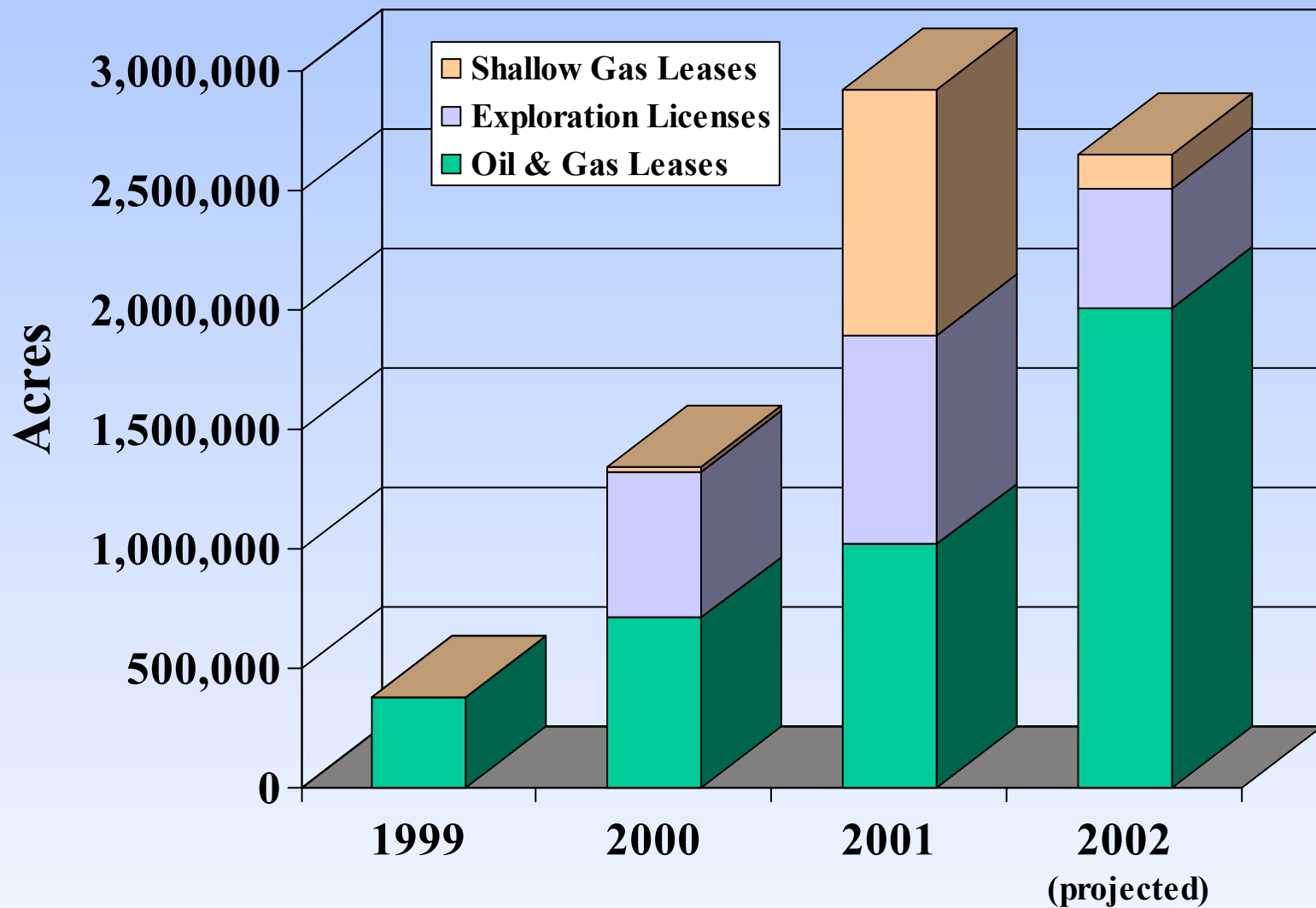
Time Required to Issue a Lease



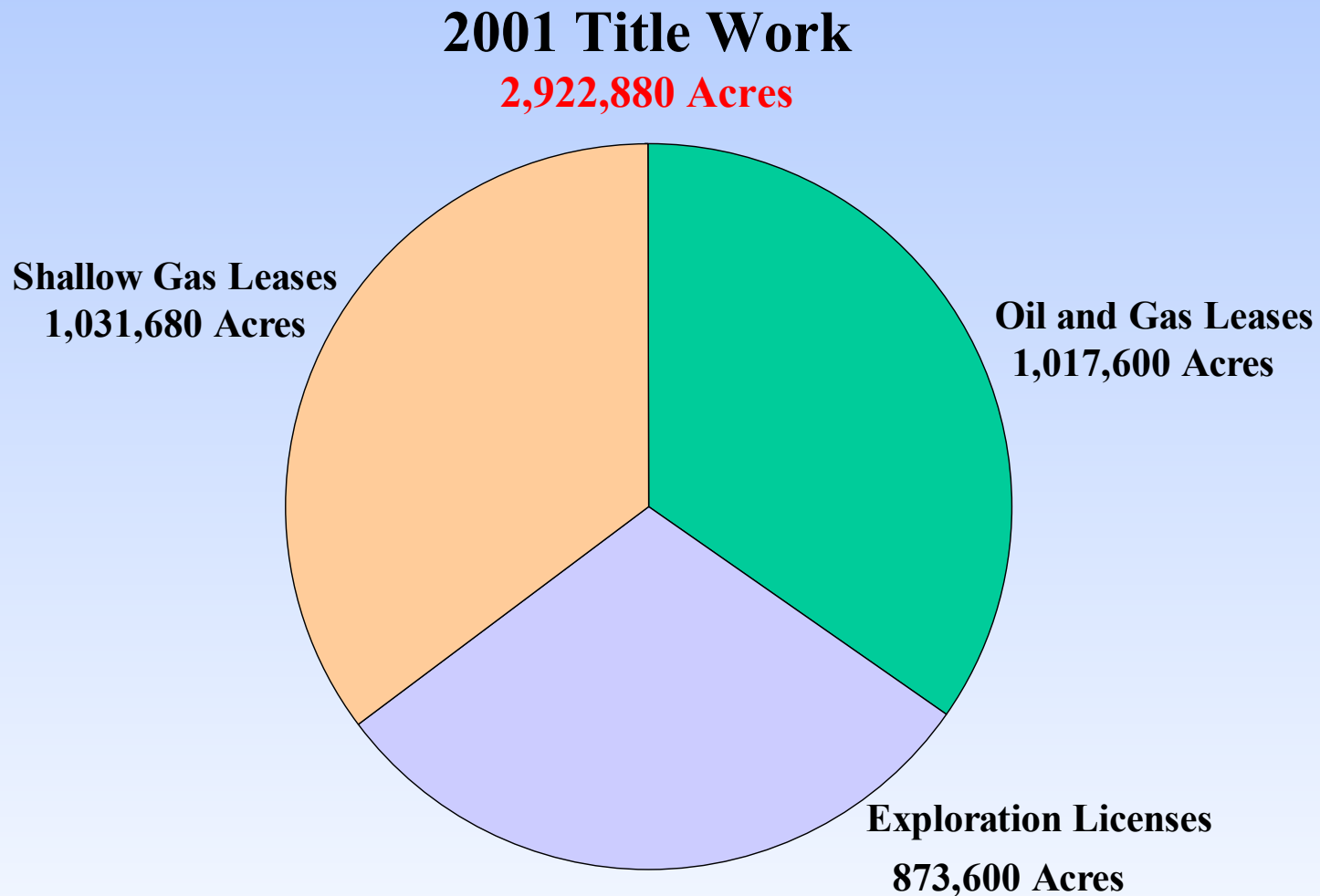
Lease Issuance Flow Chart



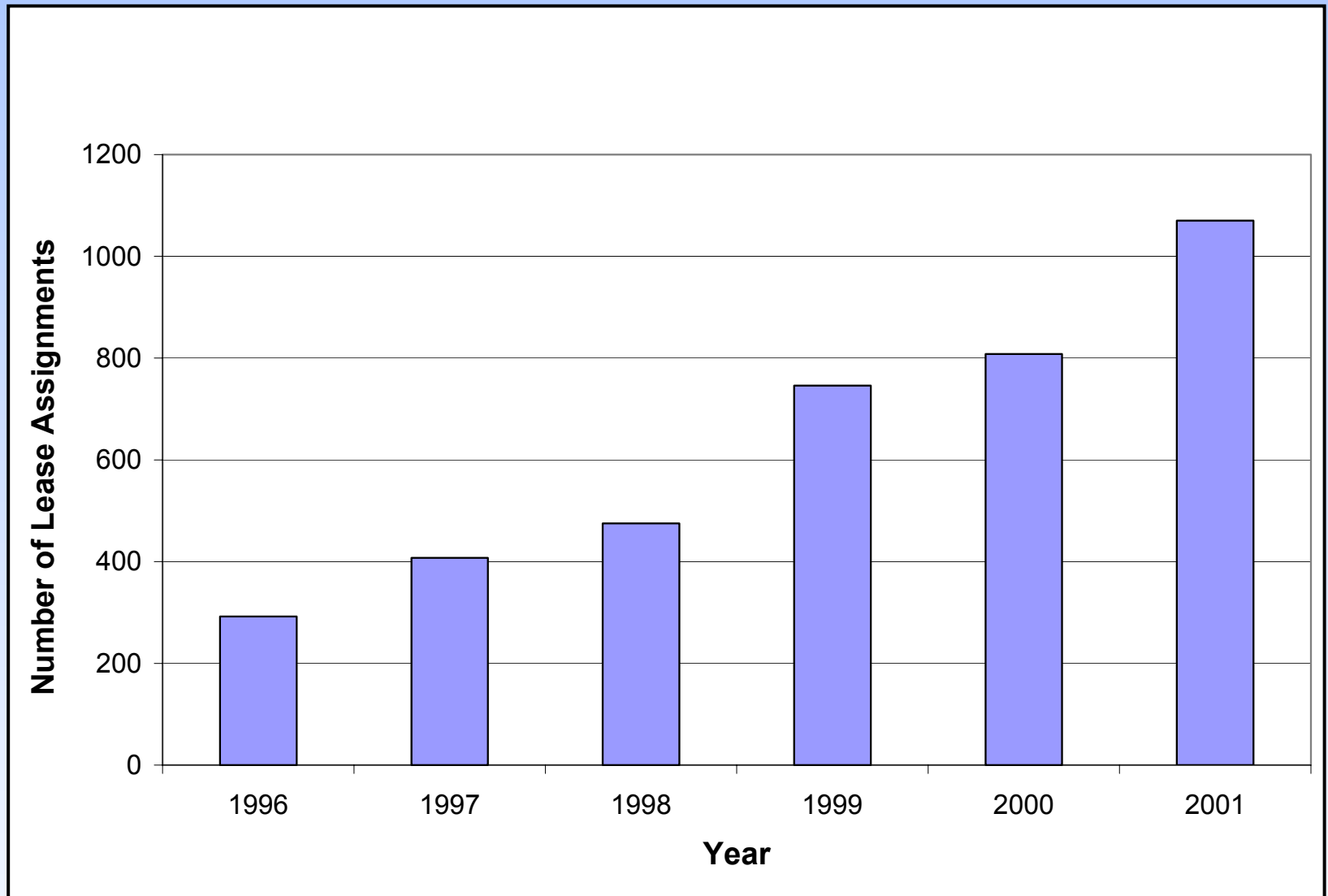
Title Work



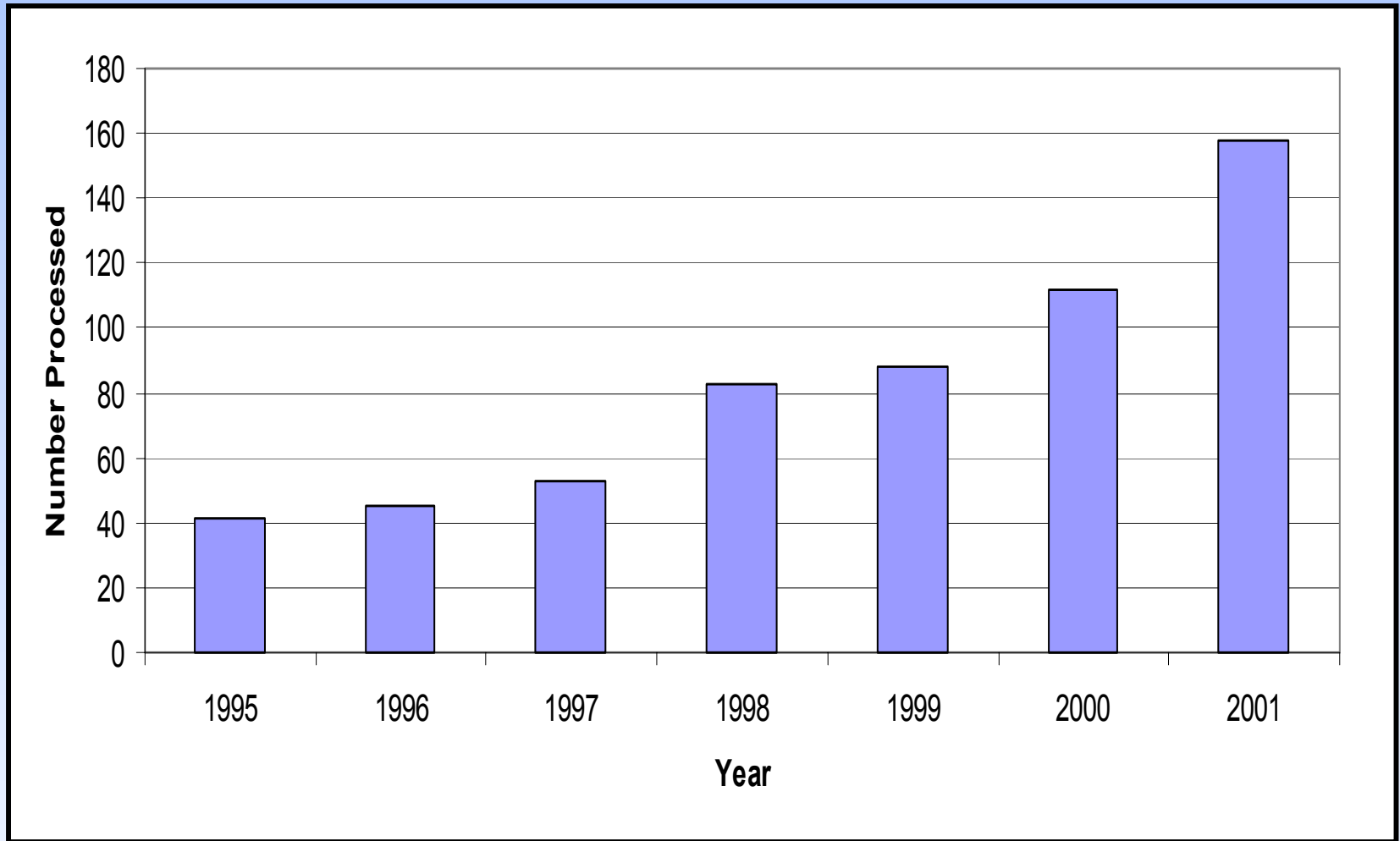
New Shallow Gas Leasing & Exploration Licensing Programs Dramatically Increase Division Workload



Lease Assignments in Alaska



Unit Actions



Actions include Units and Participating Areas formed, expanded, contracted, and terminated; Unit decisions appealed; Unit Plans of Exploration and Development reviewed and approved.

What Are The Common Lease/Unit Administrative Actions?

Unit - Units are groups of leases; units are established to efficiently explore and develop the leases covering one or more potential hydrocarbon accumulations

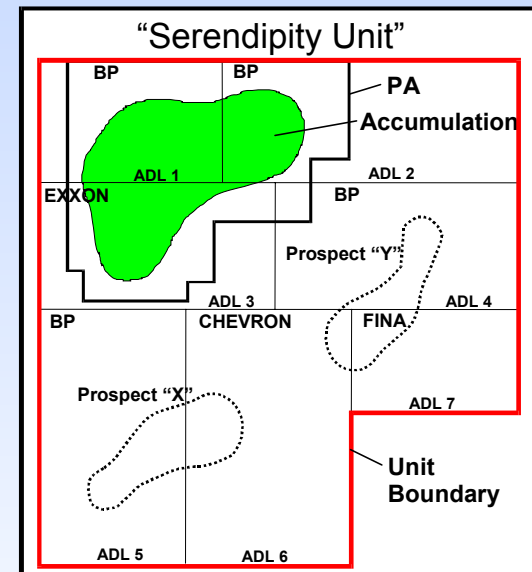
Participating Area (PA) - That portion of leases in a unit which cover a known or estimated accumulation and to which production is allocated via a unit agreement

Units Actions:

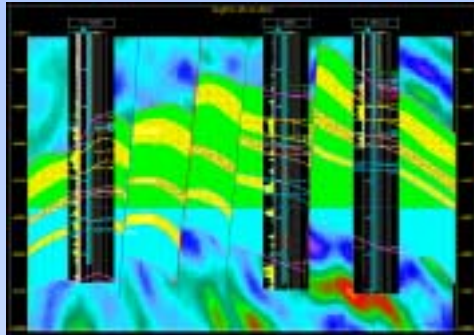
- Initial Formation
- Technical Evaluations - Reservoir Extent, Paying Quantities
- Negotiations - Unit Agreement
- Work Commitments
- Expansions
- Contractions
- Annual Plan of Exploration or Development

Participating Areas:

- Initial Formation
- Technical Evaluations - Commerciality
- Tract Allocation Factors
- Field Costs/Processing Costs
- Gas and Gas Liquids
- Fluid Commingling
- Facility Sharing
- Well Test Allocation
- Expansions
- Contractions
- Annual Plan of Development



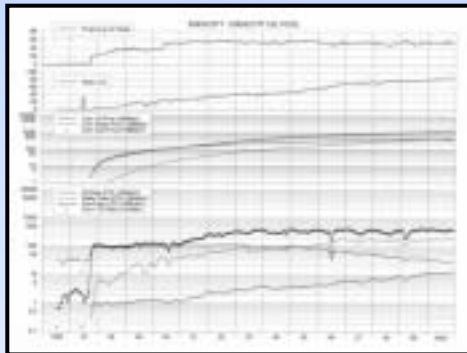
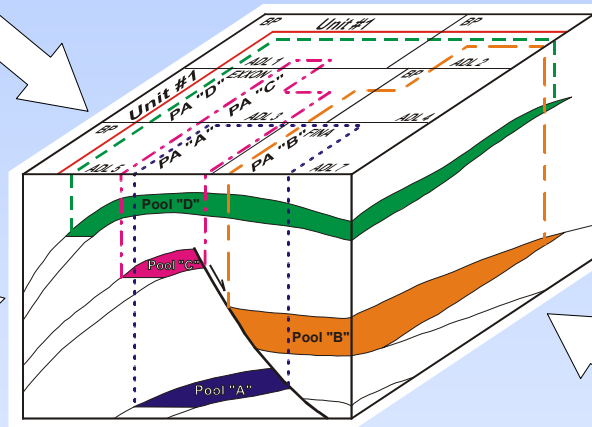
Different databases and data managed and merged to create 3-D pictures of oil fields and royalty share



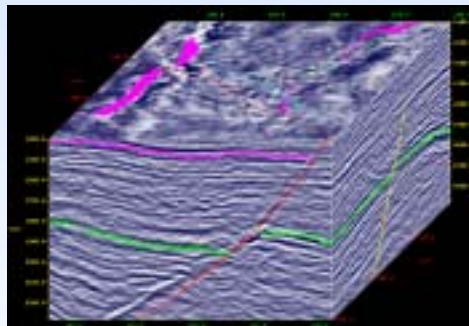
Geologic Data
(Well logs, Directional Surveys, Geochemistry, Paleontology, & Formation data)



Royalty, Lease, Unit/Participating Areas, Ownership & Economic Data

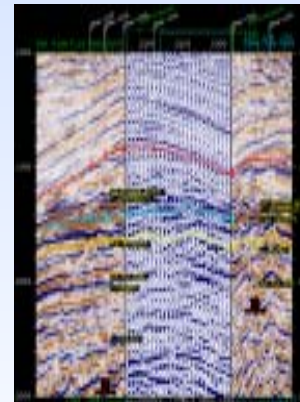


Engineering & Production Data



3-D Seismic

Geophysical Data
(Seismic, Gravity, Magnetic, Velocity, & Shothole data)



2-D Seismic



**Geographic Information;
Cultural & Physical Data
Aerial & Satellite Imagery**

Gas Cap Mechanisms

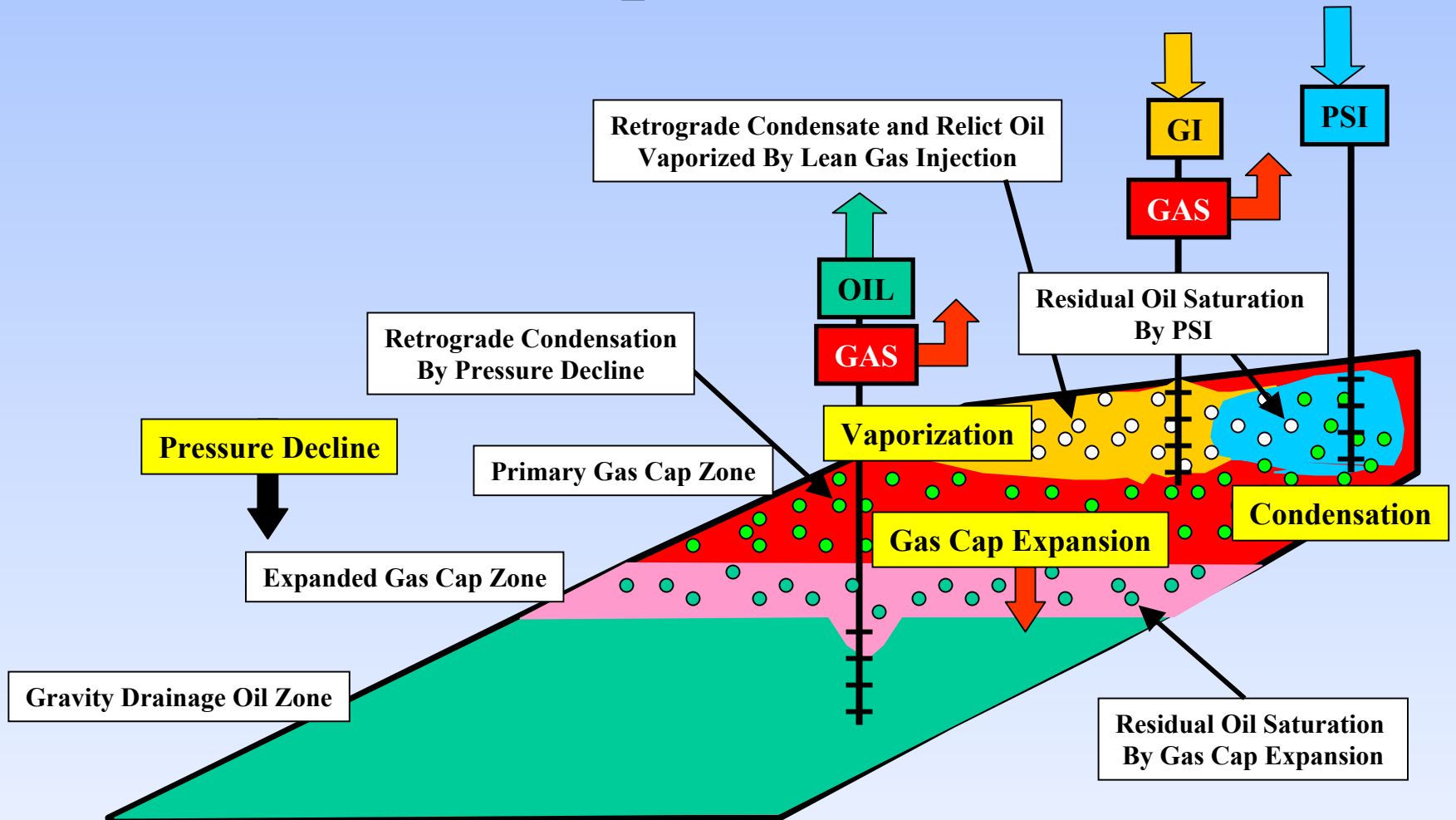
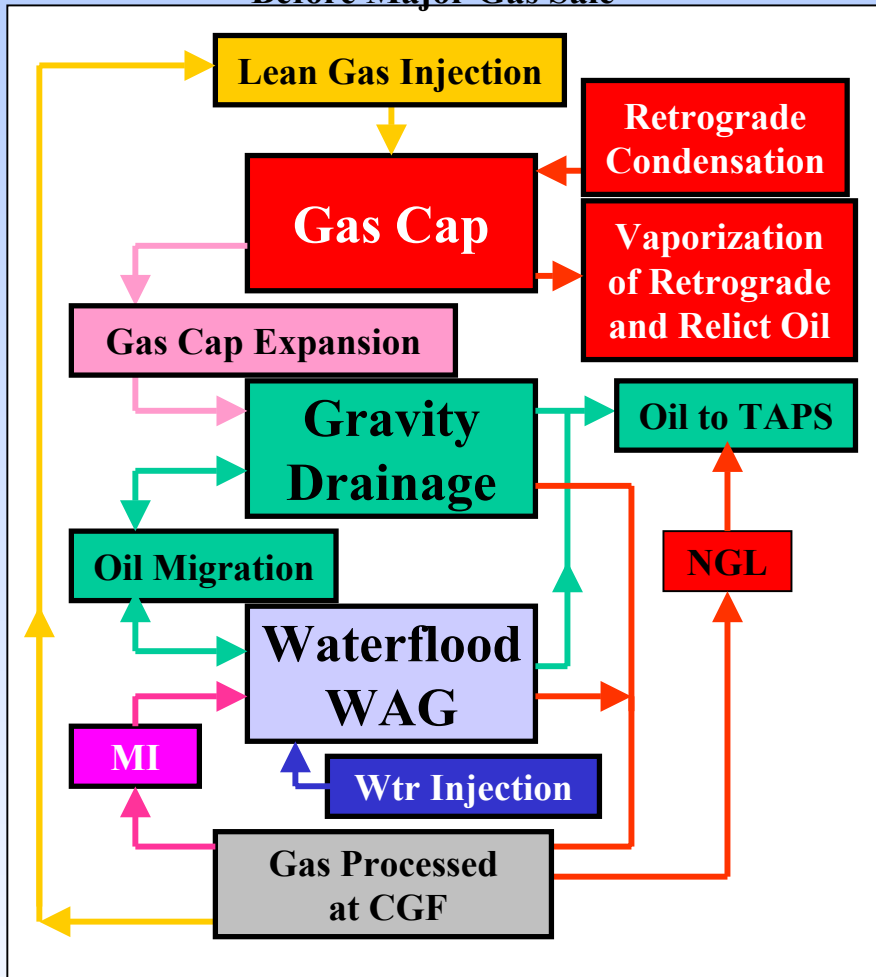


Figure 4

PBU Mechanisms

Before Major Gas Sale



During Major Gas Sale

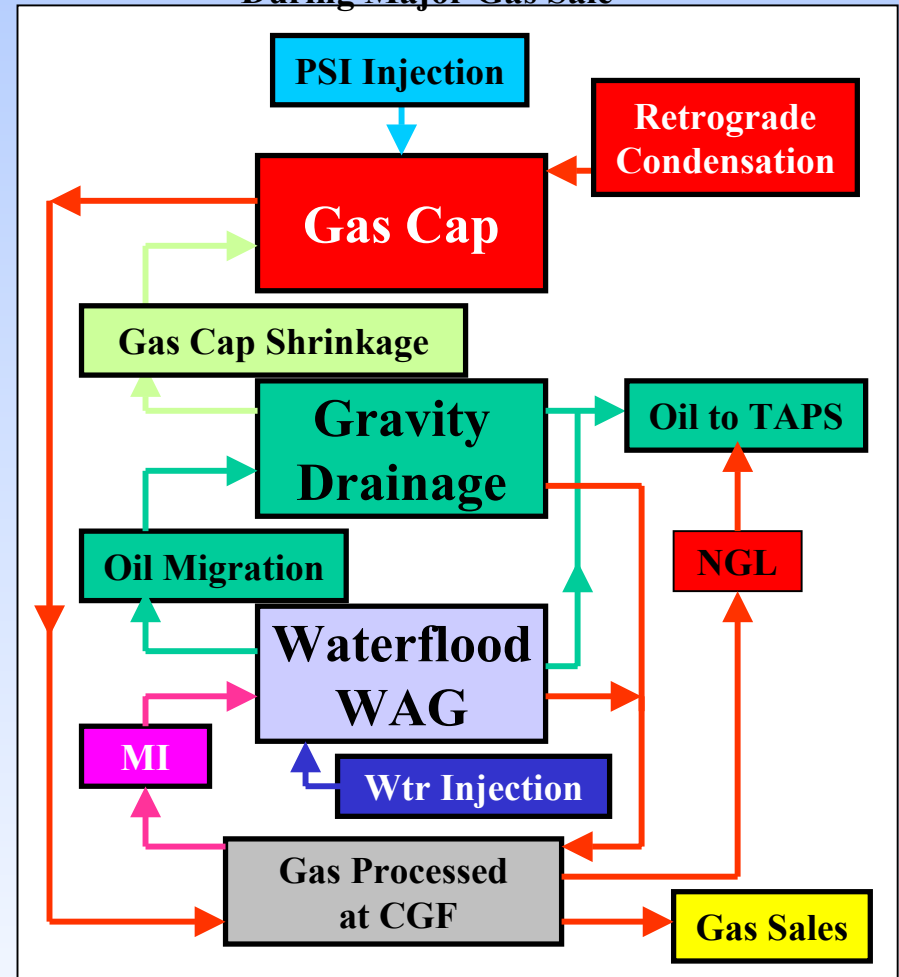
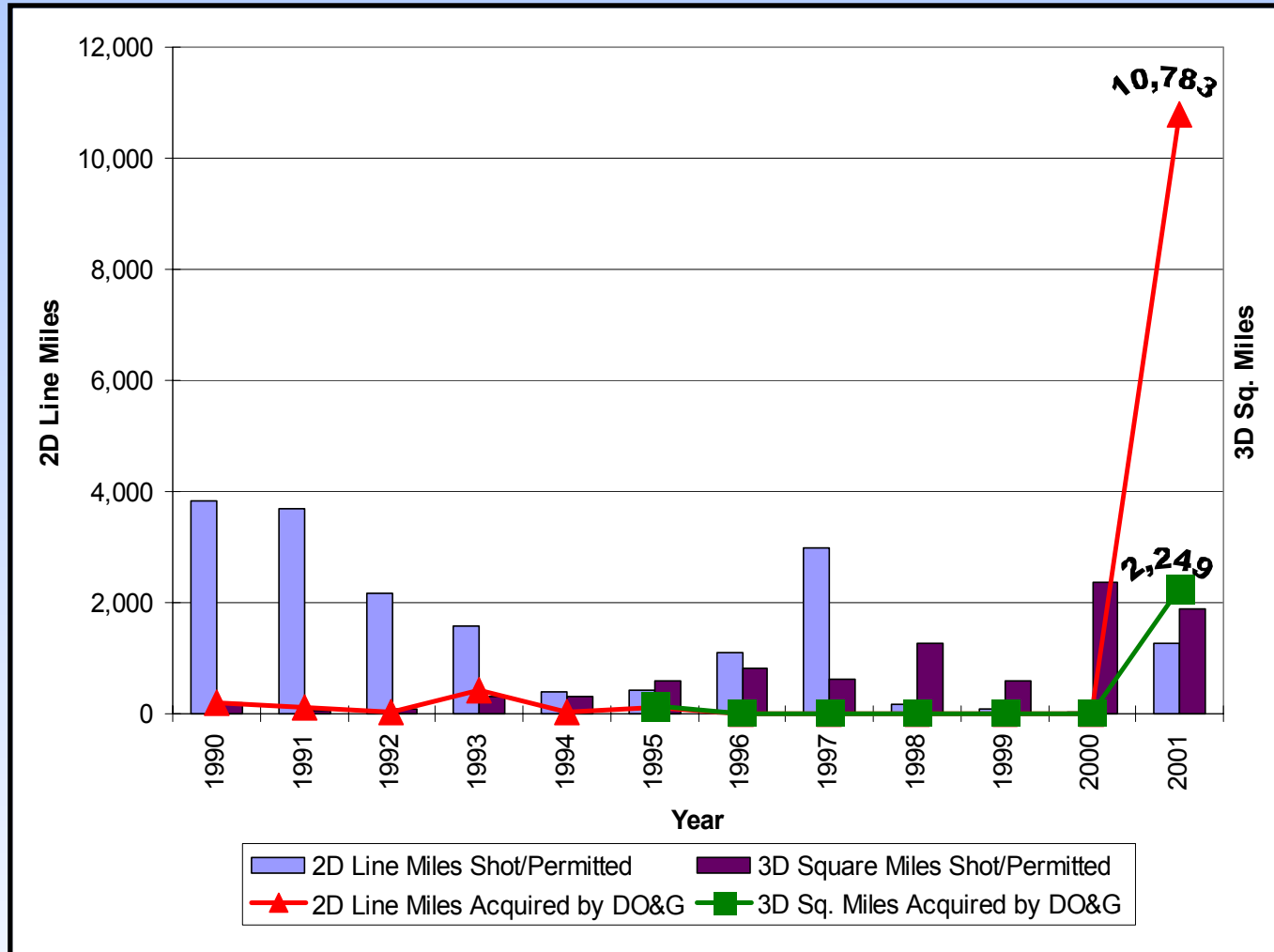


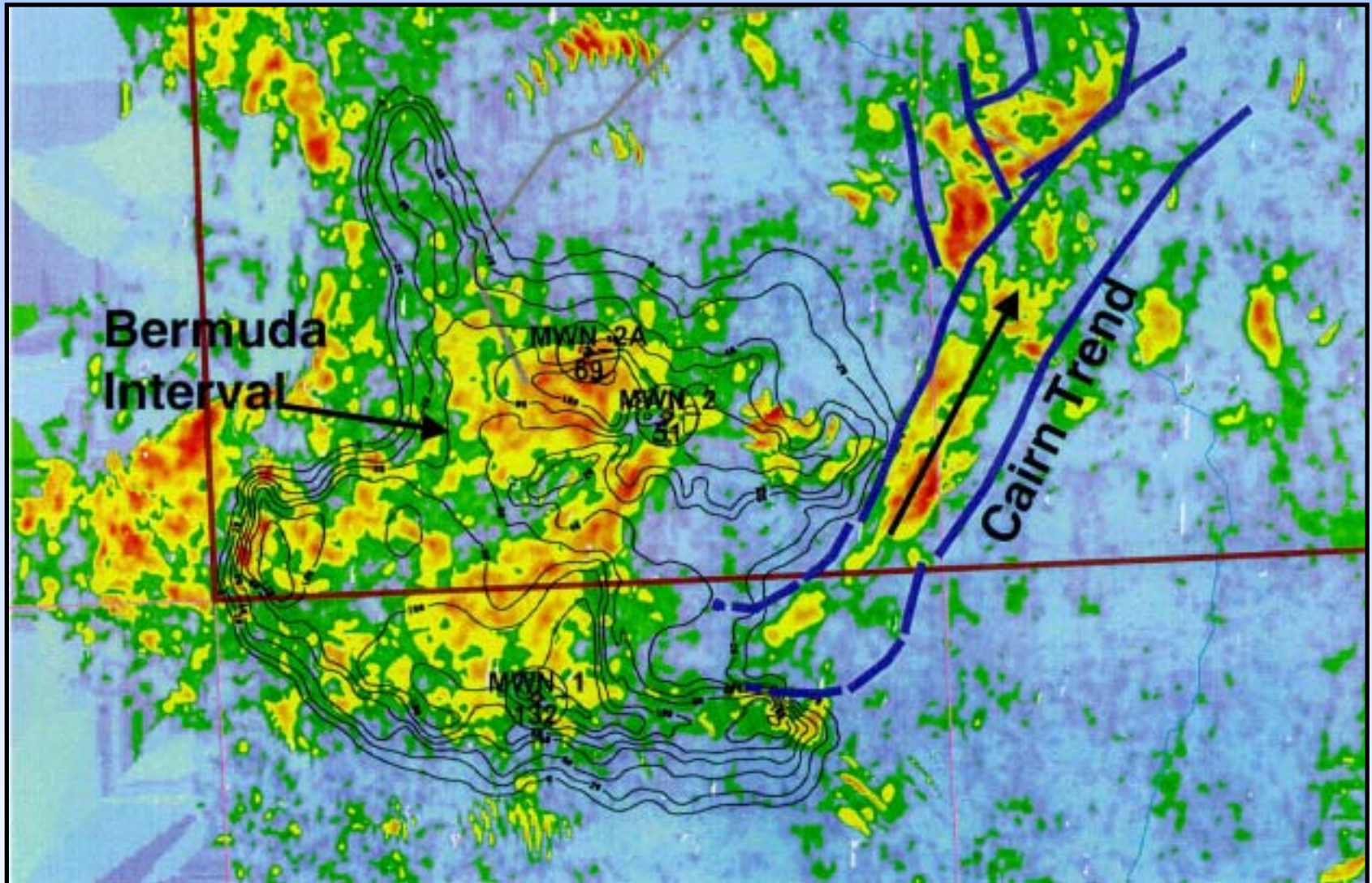
Figure 10

Seismic Data Status

1990 - 2001



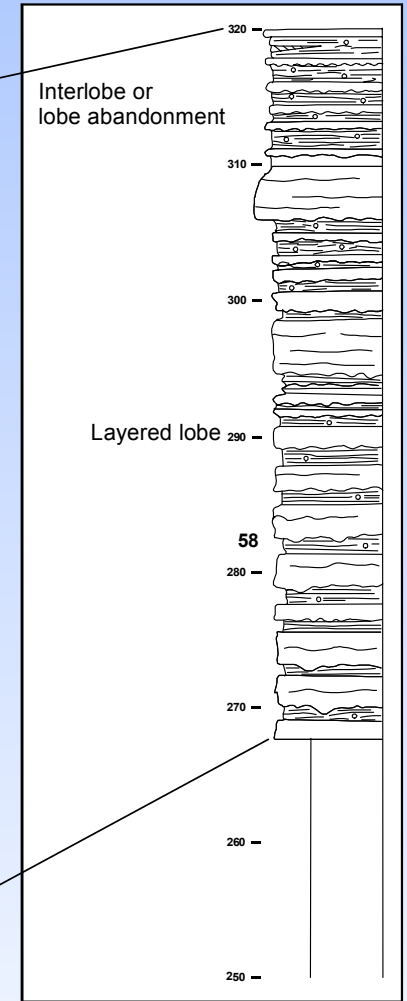
C35-T4.1 Window Far Offset Maximum Amplitude



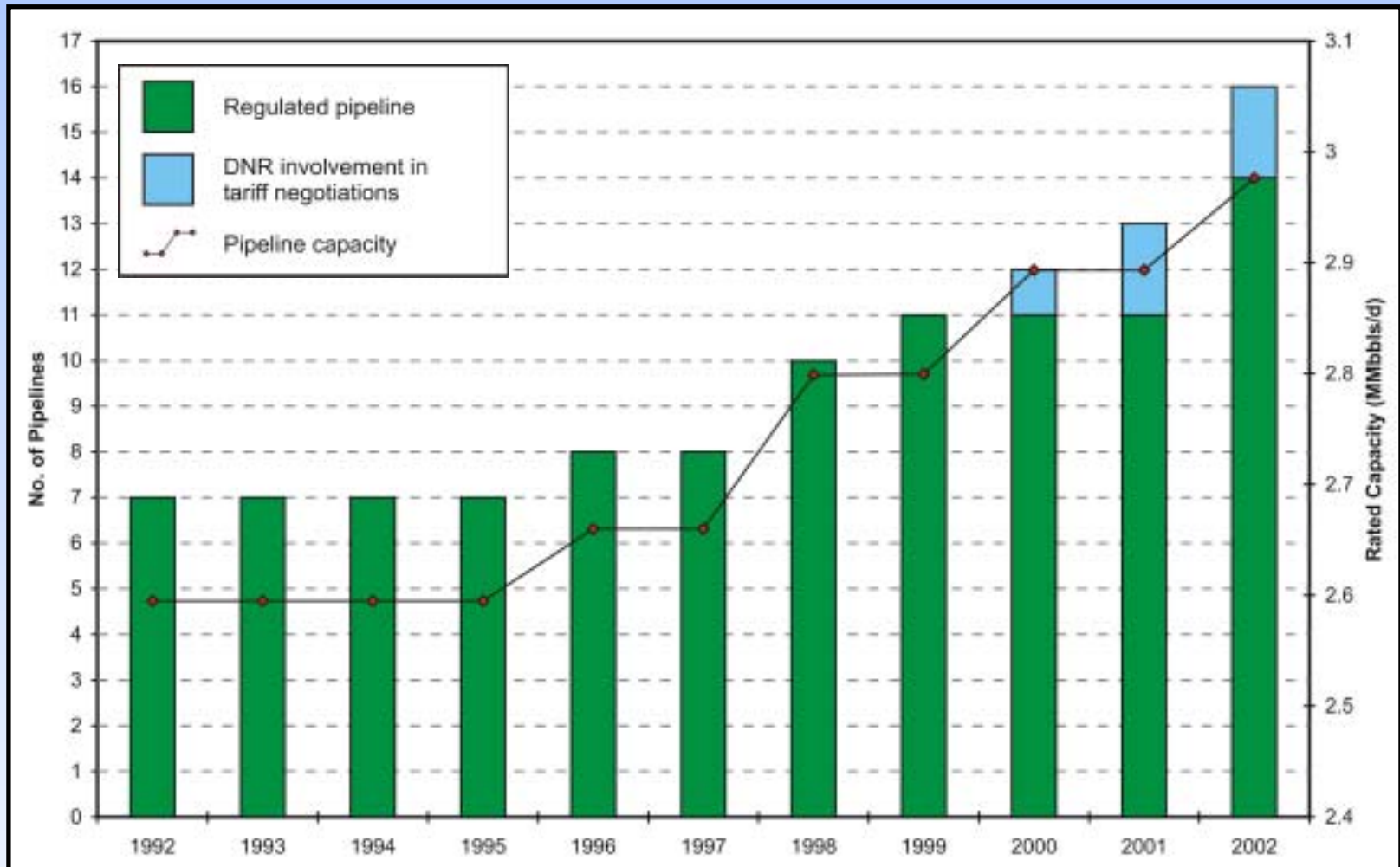
Layered lobe deposits consisting of waning flow high-density turbidites



Torok Formation-Chandler River Section



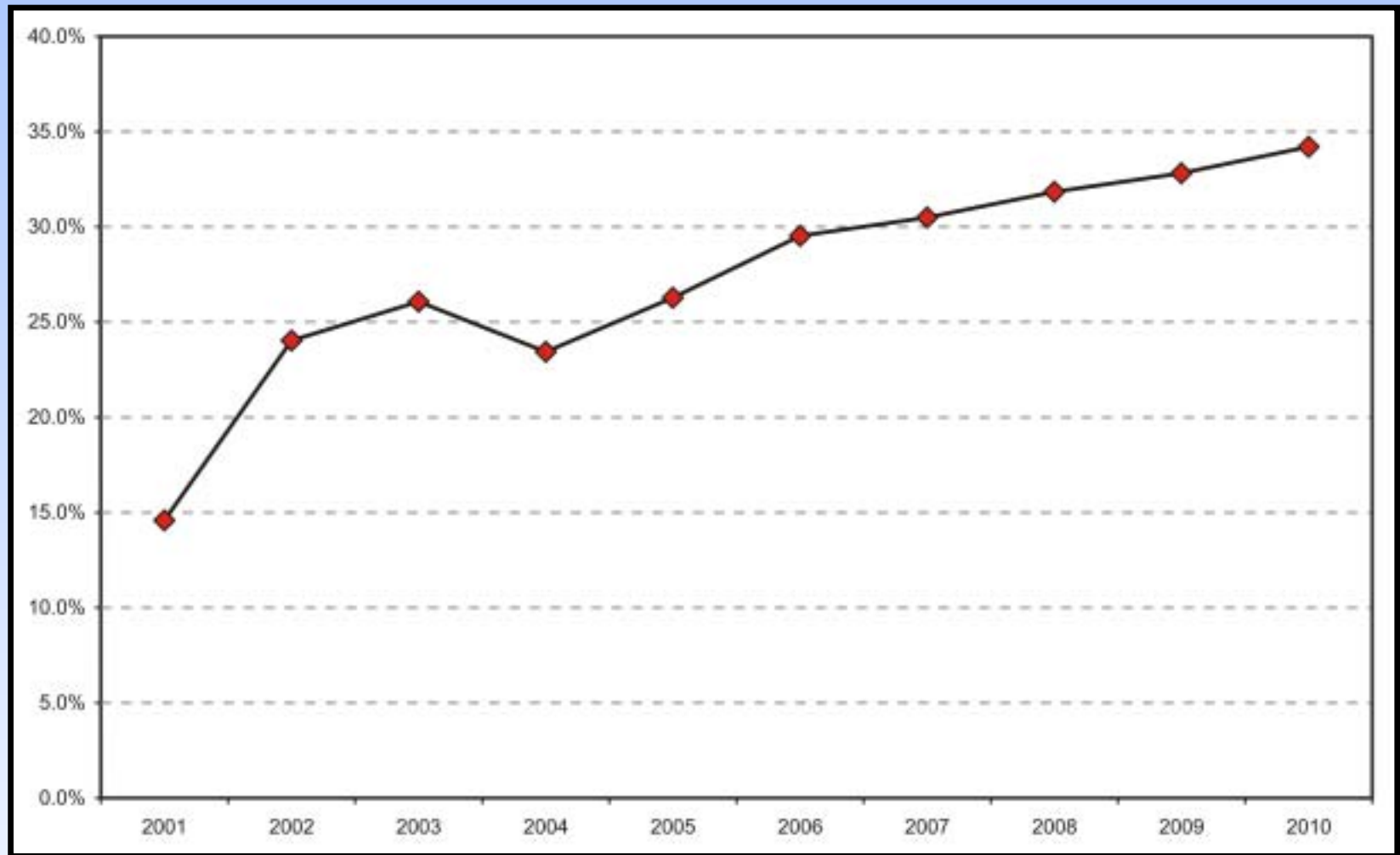
Alaska Regulated Pipelines



Source: Division of Oil and Gas, January 2002

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Projected Pipeline Tariffs as a Percent of ANS Wellhead Price

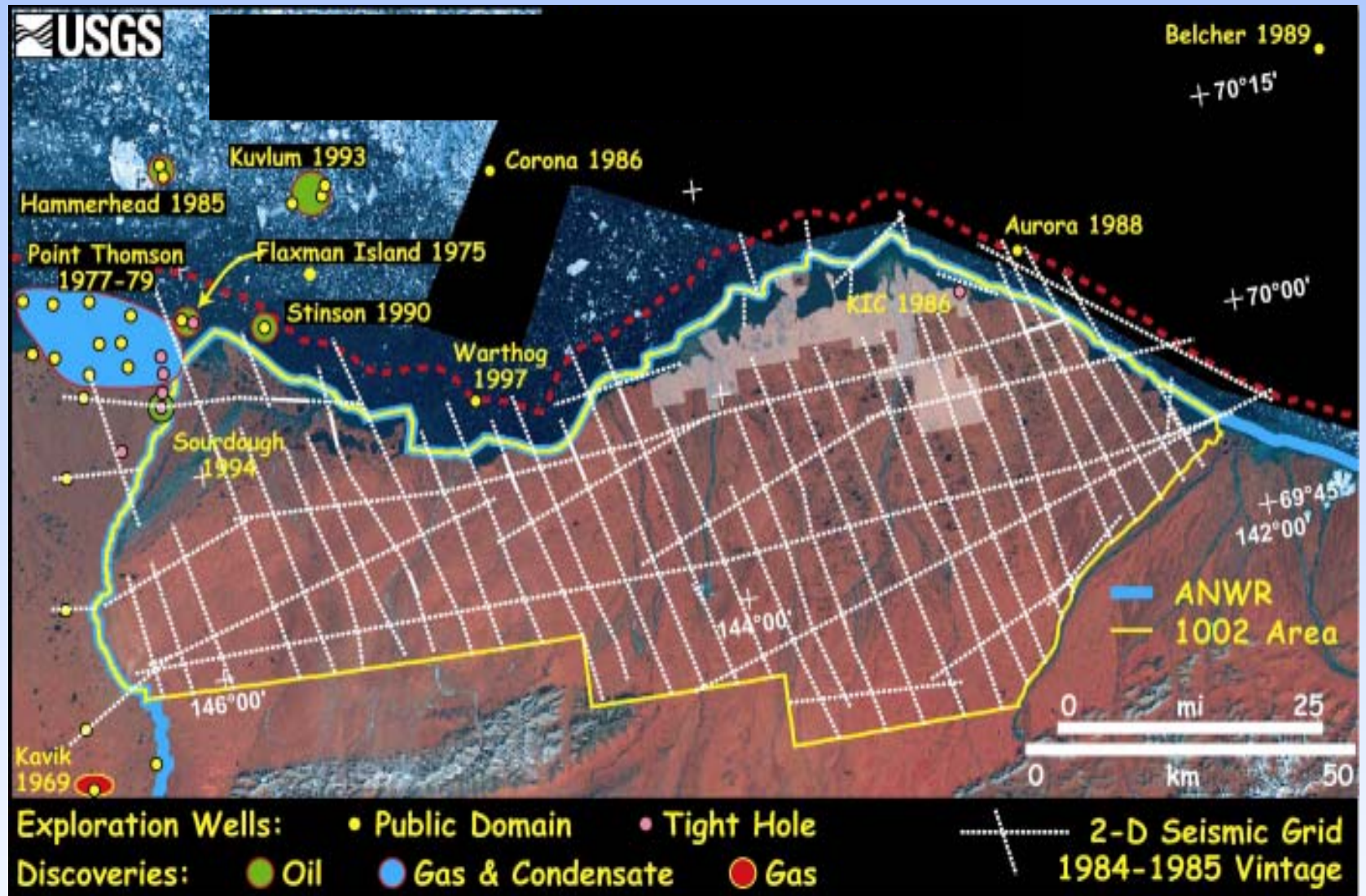


Source: DOR, Revenue Sources Book, Fall 2001

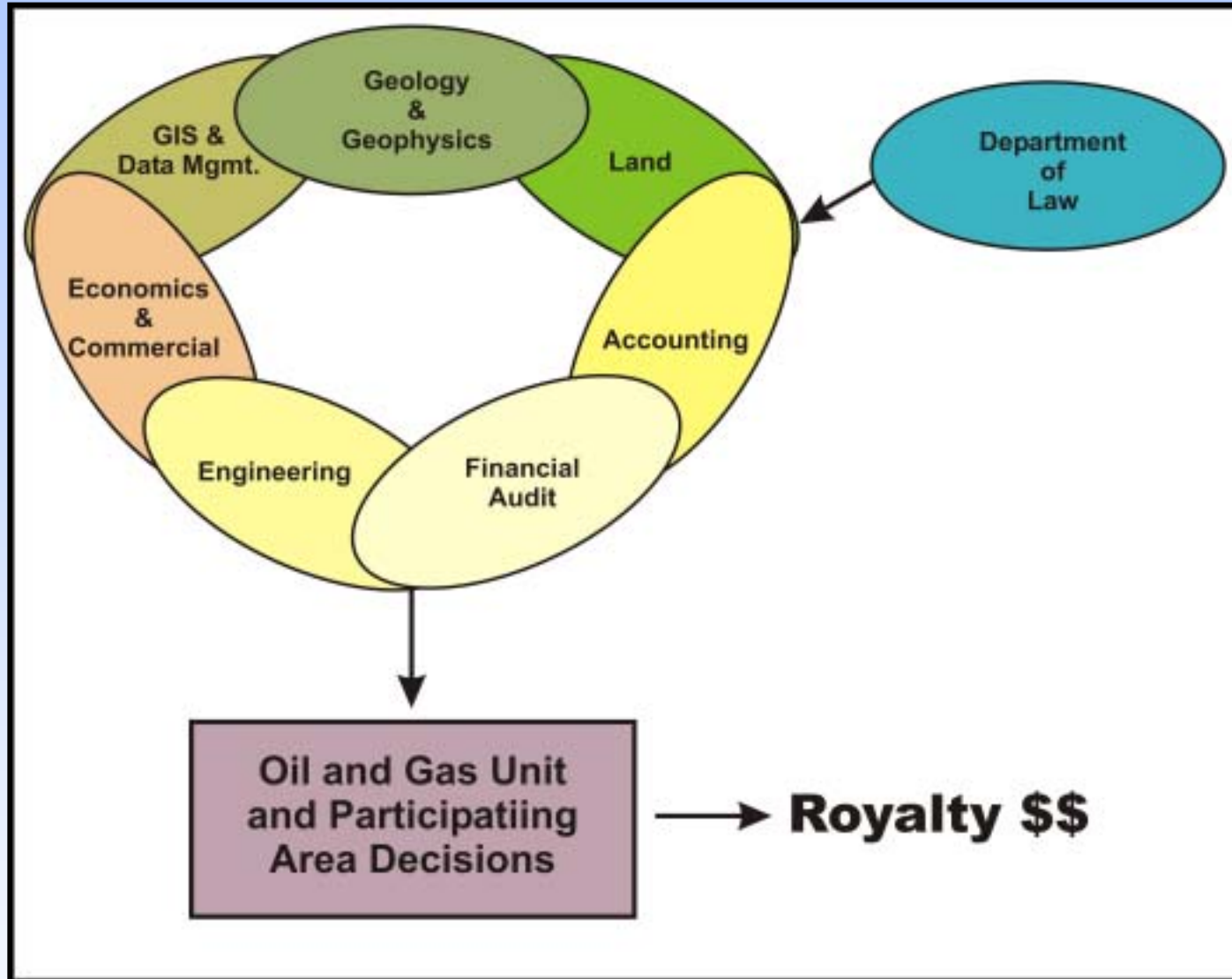
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ANWR 1002 Area

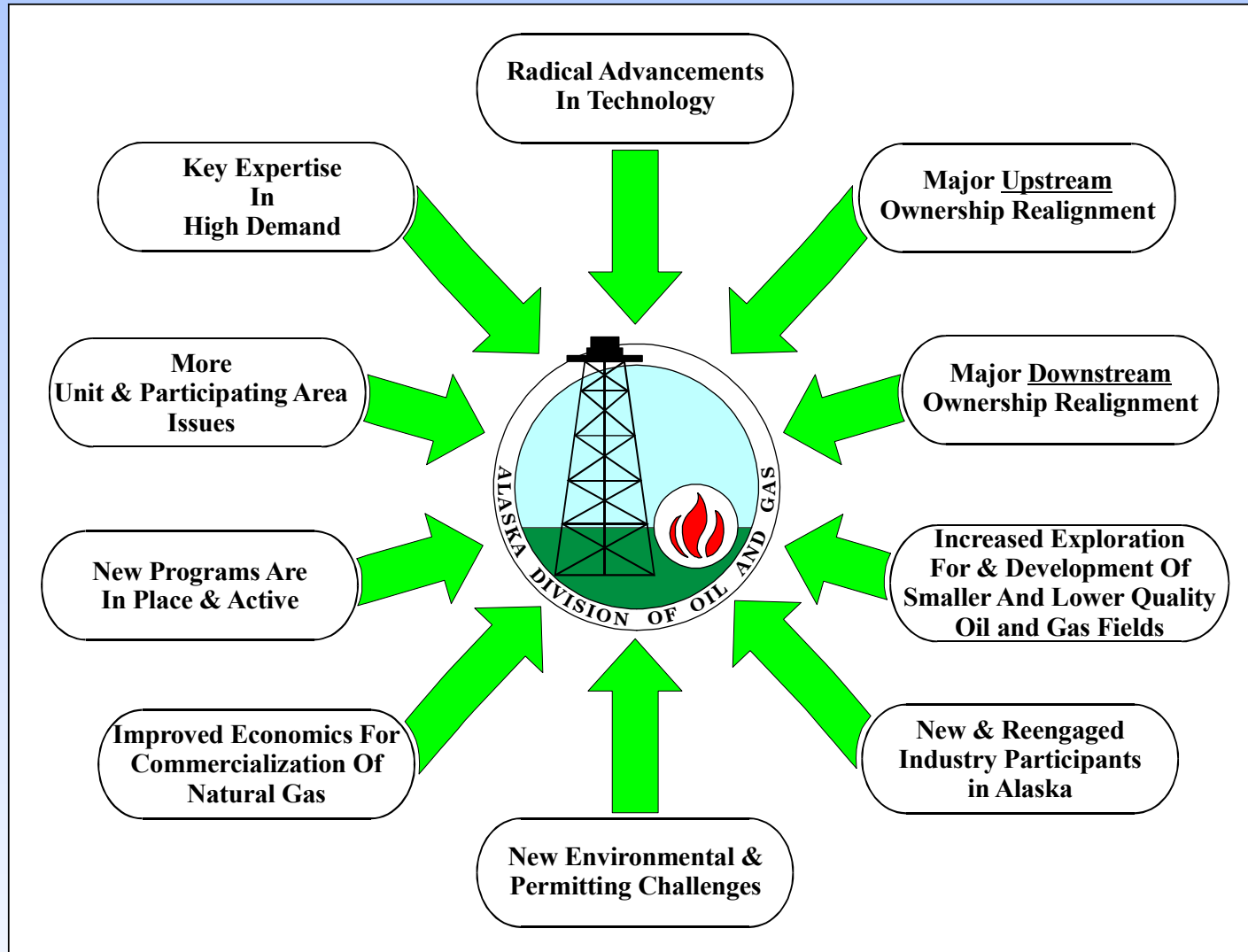
Wells, Discoveries, & Seismic Data



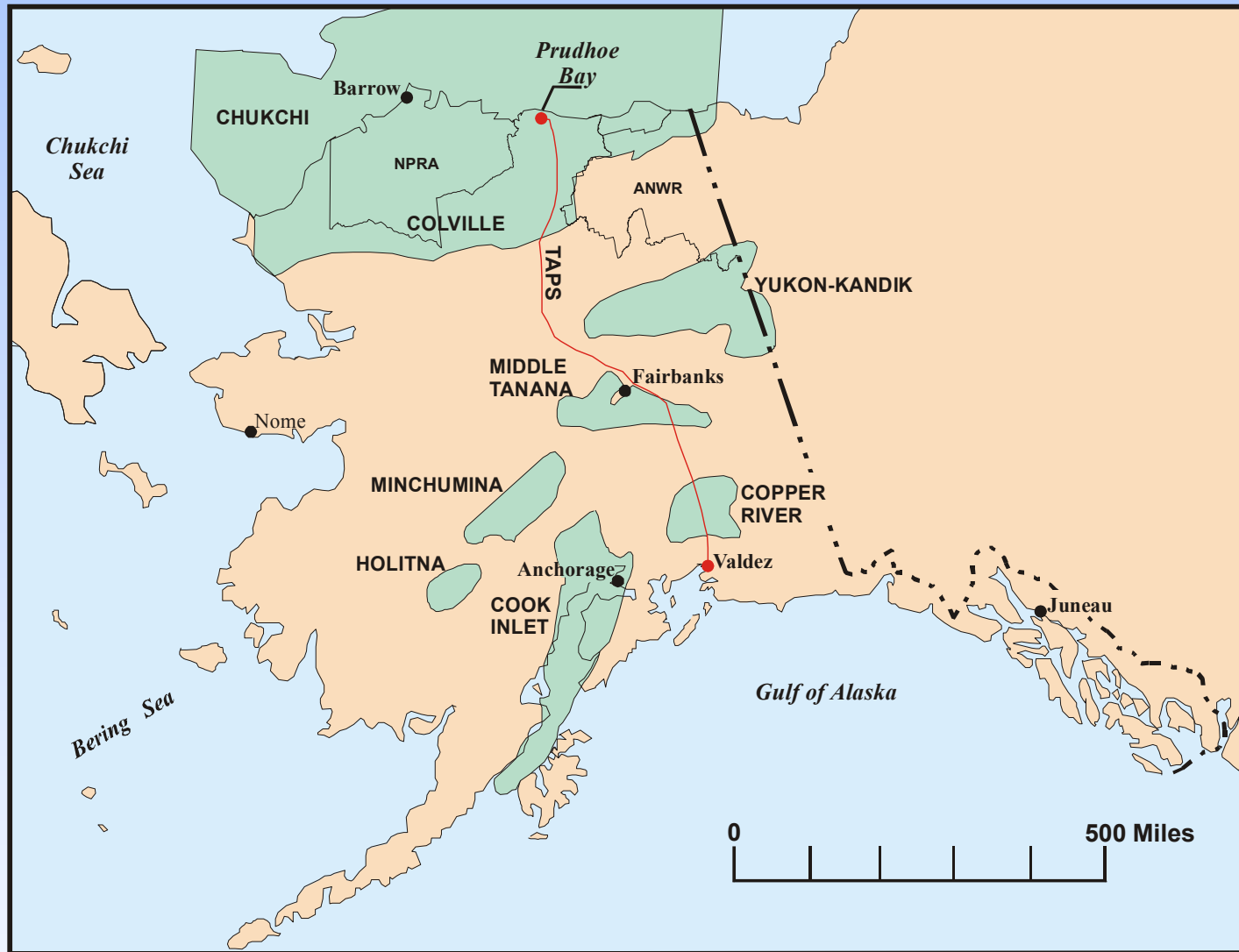
Division of Oil & Gas Organization Links Affect the Bottom Line



Recent Dynamic Changes in Alaska's Oil and Gas Business REQUIRE a Transformation of the Division of Oil and Gas



Alaska's Onshore Basins



End